Index of Feature Material

MATERIALS & METHODS

Volume 23

January—June 1946, Inclusive

ALUMINUM AND ITS ALLOYS:

German Practice in Solution Heat Treatment, Pearson—Feb., p. 429.
Wrought Aluminum Alloys (MATERIALS & METHODS Manual), Mitchell—Feb., p. 447.
Shear Properties of Metals and Alloys, (Engineering File Facts), Burpo—June, p. 1617.
Arc Welding, see Welding, Arc
Award Competition, MATERIALS & METHODS, Jan., p. 79.
Brazed Stampings Basis of New Auto Engine, Knight—Feb., p. 438.
Brazing, see Welding
Camera, High-Speed Movie, Materials in Action As Seen by, Rose—Feb., p. 414.

CASTINGS:

Engineering Review, Cone—Jan., p. 110.
Magnesium-Cerium for High Temperature Use, Marande—Feb., p. 418.
Precision Investment, MATERIALS & METHODS Manual), Cady—Mar., p. 741.
Precision, Mass Production of, April, p. 1016.
Standard Alloy Designations for Heat and Corrosion (Engineering File Facts)—Mar., p. 765.
Rapid Baking of Foundry Cores by Dielectric Heating, Wise and Moran—May, p. 1307.
Continuous, of Alloy Bearing Strip, Lamb and Jeter—June, p. 1567.
Cast Iron, Heat Tinting for Microscopic Examination (Engineering File Facts)—April, p. 1053.
Cerium, Magnesium Alloy Castings for High Temp. Use, Marande—Feb., p. 418.

CHROMIUM:

Porous Chromium Plating Adds to Piston Ring Life, Jarrett and Guerke—May, p. 1293.
Chromium-Vanadium Carburizing Steel "6120," Franklin—June, p. 1564.

CLEANING:

Engineering Review, Du Mond—Jan., p. 140.
Sodium Hydride Descaling, Cady—May, p. 1279.
Compressed Air Speeds Powder Metal Forming—Mar., p. 729.

CONTROL:

Process (Engineering Review), Knight—Jan., p. 151.
Precision Production of Steel Aircraft Gears, Brown—May, p. 1303.
Coolants for Machining Operations, (Engineering File Facts)—Feb., p. 475.

COPPER, BRASS AND BRONZE:

Brass Press Forgings or Die Castings—Which?, Chase—April, p. 995.
Electric Furnace Copper Brazing of Steel Parts, Webber—Mar., p. 725.
Engineering Bronzes, (MATERIALS & METHODS Manual), Rose—April, p. 1027.
Shear Properties of Metals and Alloys, (Engineering File Facts), Burpo—May, p. 1341.
Descaling, Sodium Hydride, Cady—May, p. 1279.
Deep Drawing Magnesium Parts, Production Principles for, Gillespie—Mar., p. 701.
Diamond Dies for Wire Drawing, Wall—Mar., p. 717.
Die Castings, Brass Press Forgings or, Chase—April, p. 995.

DIELECTRIC HEATING:

Formulas (Engineering File Facts)—Jan., p. 183.
Rapid Baking of Foundry Cores, Wise and Moran—May, p. 1307.
Dies, Diamond, for Wire Drawing, Wall—Mar., p. 717.
Electroplating, see Finishing.

ENGINEERING FILE FACTS:

Coolants for Machining Operations (No. 107)—Feb., p. 475.
Induction and Dielectric Heating (No. 103)—Jan., p. 183.
Lead, Specifications and Properties (No. 105), Burpo—Jan., p. 187.
Spring Materials (No. 104), Carlson—Jan., p. 185.
Stripping Metallic Coatings (No. 108), Black—Feb., p. 477.
Heat Tinting Cast Iron for Microscopic Examination (No. 113), April, p. 1053.
Plastics—A Summary of ASTM Specifications (No. 112), Burpo—April, p. 1047.
Properties of Steel for High Temperature Service (No. 111), Burpo—Mar., p. 769.
Silver Brazing Alloys, Common Specifications (No. 110), Burpo—Mar., p. 767.
Standard Alloy Designations for Heat and Corrosion Resistant Castings (No. 109)—Mar., p. 765.
Shear Properties of Metals and Alloys (No. 114), Burpo—Part I, May, p. 1341, Part II, June, p. 1617.
Martensite Formation Range for Engineering Steels (No. 115)—June, p. 1621.
Rockwell Hardness Correction Factors (No. 106)—Feb., p. 471.

EXTRUDING:

Engineering Review, Knight—Jan., p. 120.
Impact Extrusions (MATERIALS & METHODS Manual), Chase—May, p. 1323.
Extruding Powdered Metals to Form Synthetic Welding Wire, Daveler—May, p. 1317.

FINISHING:

Engineering Review, Du Mond—Jan., p. 140.
Finishes (Engineering Review), Rose—Jan., p. 105.
Porous Chromium Plating Adds to Piston Ring Life, Jarrett and Guerke—May, p. 1293.
Stripping Metallic Coatings (Engineering File Facts), Black—Feb., p. 477.

FORGING:

Engineering Review, Du Mond—Jan., p. 115.
Brass Press Forgings or Die Castings—Which?, Chase—April, p. 995.
Forming Powder Metal, Compressed Air Speeds—Mar., p. 729.

FURNACES:

Electric Furnace Copper Brazing of Steel Parts, Webber—Mar., p. 725.
High Speed Heating with Gas, Eigenbrot—May, p. 1313.
High Temperature, for Distilling and Refining Metals, Poland—Mar., p. 710.
Salt Bath, for Sodium Hydride Descaling, Cady—May, p. 1279.
German Practice in Solution Heat Treatment of Rolled Aluminum Alloys, Pearson—Feb., p. 429.
Glass, Some Uses as an Engineering Material, Lindsay—May, p. 1284.

HARDENING (SEE ALSO FURNACES AND HEAT TREATING):

Age-Hardening Stainless Steel Without Cold Working, Du Mond—Feb., p. 432.
Induction-Hardening of Steel Parts, Boyle—Feb., p. 425.
Subzero Treatment Simplifies Hardening of Alloy Carburizing Steels, Boyer and Miller, Mar., p. 730.
High Speed Heating With Gas Provides Heat Treat Tool, Eigenbrot—May, p. 1313.
Heat-Treated Rivets for High Strength Joints, Marvin—June, p. 1574.
Heat-Tinting Cast Iron for Microscopic Examination (Engineering File Facts)—April, p. 1053.

HEAT TREATING AND HEATING:

Engineering Review, Du Mond—Jan., p. 130.
Solution, of Rolled Aluminum Alloys, German Practice in, Pearson—Feb., p. 429.
Dielectric Heating Formulas (Engineering File Facts)—Feb., p. 183.
Rapid Baking of Foundry Cores by Dielectric Heating, Wise and Moran—May, p. 1307.

HIGH TEMPERATURES:

Magnesium-Cerium Castings for High Temperature Use, Marande—Feb., p. 418.

Furnace for Distilling and Refining Metals, Poland—Mar., p. 710.
Steels for, Properties (Engineering File Facts), Burpo—Mar., p. 769.
Super Alloys for High Temperature Service, Knight—June, p. 1557.

INDUCTION:

Hardening Precision Steel Parts, Boyle—Feb., p. 425.
Heating Formulas (Engineering File Facts)—Jan., p. 183.
Brazing, Baubie—April, p. 1007.

INSPECTION (SEE ALSO CONTROL, METALLOGRAPHY, TESTING):

Engineering Review, Knight—Jan., p. 145.
Radiography With Multimillion-Volt X-Rays, Clauser—Mar., p. 706.
Instrumentation, Engineering Review, Knight—Jan., p. 151.

IRON:

Engineering Review, Peters—Jan., p. 86.
Shear Properties of Metals and Alloys (Engineering File Facts), Burpo—May, p. 1341.
Joining, see Welding
Lead, Specifications and Properties, (Engineering File Facts), Burpo—Jan., p. 187.

MACHINING:

Coolants for (Engineering File Facts)—Feb., p. 475.
Engineering Review, Du Mond—Jan., p. 125.
Metallographic Examination Discloses Causes of Machining Difficulties, Cusworth, Caum and Kingsbury—Feb., p. 434.

MAGNESIUM:

Magnesium-Cerium Alloys for High Temperature Use, Marande—Feb., p. 418.
Production Principles for Deep Drawn Magnesium Parts, Gillespie—Mar., p. 701.

MANUALS, MATERIALS & METHODS:

Wrought Aluminum Alloys (No. 12), Mitchell—Feb., p. 447.
Precision Investment Castings (No. 13), Cady—March, p. 741.
Engineering Bronzes (No. 14), Rose—April, p. 1027.
Impact Extrusions (No. 15), Chase—May, p. 1323.
Processing Equipment Review and Directory—June, p. 1589.
MATERIALS & METHODS Achievement Award Competition—Jan., p. 79.

MELTING AND REFINING:

Engineering Review, Cone—Jan., p. 110.
High Temperature Furnace for Distilling and Refining Metals, Poland—Mar., p. 710.
Precision Castings, Mass Production of, —April, p. 1016.

METALLOGRAPHY:

Examination Discloses Causes of Machining Difficulties, Cusworth, Caum and Kingsbury—Feb., p. 434.
Electrical Equipment for Spectrographic Analysis, Coulter—June, p. 1298.
Simple, Fast Metallographic Polishing Method, Mc Cauley and Mondolfo—June, p. 1583.
Movie Camera, High Speed, Materials in Action As Seen by, Rose—Feb., p. 414.
Nonferrous Metals and Alloys (Engineering Review), Peters—Jan., p. 90.

NICKEL ALLOYS:

Pressure Vessels Made With Welded Nickel Alloy Linings, Menaugh—May, p. 1298.
Shear Properties of Metals and Alloys (Engineering File Facts), Burpo—May, p. 1341.

NONMETALLIC MATERIALS:

Properties and Fabrication of Glass Reinforced Plastics, Slayter and Collins—Mar., p. 720.
Resin Impregnated Plaster of Paris, Delmonte—April, p. 1011.
Plastics as Engineering Materials, Sherman—April, p. 982.
Plastics—A Summary of ASTM Specifications, (Engineering File Facts), Burpo—April, p. 1047.
Engineering Review, Rose—Jan., p. 96.
Heat and Chemical Resistant Plastic—June, p. 1571.

PARTS AND METAL FORMS:

Brass Press Forgings or Die Castings—Which?, Chase—April, p. 995.
Engineering Review, Peters—Jan., p. 101.
Impact Extrusions (MATERIALS & METHODS Manual), Chase—May, p. 1323.
Induction Hardening of Precision Steel Parts, Boyle—Feb., p. 425.
Precision Investment Castings (MATERIALS & METHODS Manual), Cady—Mar., p. 741.
Production Principles for Deep Drawn Magnesium Parts, Gillespie—March, p. 701.
Electric Furnace Copper Brazing of Steel Parts, Webber—Mar., p. 725.
Brazed Stampings Basis of New Auto Engine, Knight—Feb., p. 438.
Plastics, see Nonmetallic Materials
Plating, see Finishing

POWDER METALLURGY:

Engineering Review, Du Mond—Jan., p. 123.
Cemented Steels, Peters—April, p. 987.
Compressed Air Speeds Powder Metallurgy Forming—April, p. 729.
Extruding Powdered Metals to Form Synthetic Welding Wire, Daveler—May, p. 1317.
Power Tube Manufacture, Materials and Methods for, Lindsay—Feb., p. 406.

PRECISION CASTINGS:

Mass Production of Precision Castings—April, p. 1016.
Precision Investment Castings (MATERIALS & METHODS Manual), Cady—March, p. 741.
Pressforming (Engineering Review), Du Mond—Jan., p. 115.
Process Control (Engineering Review), Knight—Jan., p. 151.
Progress in Materials and Methods in 1945—Jan., p. 83.
Radiography, see Inspection
Refrigeration: Subzero Treatment Simplifies Hardening of Alloy Carburizing Steels, Boyer and Miller—Mar., p. 730.
Rolling (Engineering Review), Knight—Jan., p. 120.
Silver, Common, Brazing Alloys (Engineering File Facts), Burpo—Mar., p. 767.
Specifications, Materials Engineers and, Mc Cloud—Feb., p. 412.

STAINLESS STEEL:

Age Hardening Provides Strength Without Cold Working, Du Mond—Feb., p. 432.
Welding, Hermann, Part I, Mar., p. 713, Part II, April, p. 992.
Stampings, Brazed, Basis of New Auto Engine, Knight—Feb., p. 438.

STEEL:

Engineering Review, Peters—Jan., p. 86.
Induction Hardening of Precision Steel Parts, Boyle—Feb., p. 425.
Subzero Treatment Simplifies Hardening of Alloy Carburizing Steel, Boyer and Miller—Mar., p. 730.
Cemented Steels, Peters—April, p. 987.
Electric Furnace Copper Brazing of Steel Parts, Webber—Mar., p. 725.
Properties of Steel for High Temperature Service, (Engineering File Facts), Burpo—Mar., p. 767.
Chromium-Vanadium Carburizing Steel "6120," Franklin—June, p. 1564.
Welding Multi-Layer Steel Pressure Vessels—June, p. 1578.
Shear Properties of Metals and Alloys (Engineering File Facts), Burpo—May, p. 1341.
Martensite Formation Range for Engineering Steels (Engineering File Facts)—June, p. 1621.
Precision Production of Steel Aircraft Gears, Brown—May, p. 1303.
Spring Materials (Engineering File Facts), Carlson—Jan., p. 185.
Stress Analysis Methods, Murray—April, p. 1002.
Super Alloys for High Temperature Service, Knight—June, p. 1557.

TESTING:

Engineering Review, Knight—Jan., p. 145.
Heat Tinting Cast Iron for Microscopic Examination, (Engineering File Facts)—April, p. 1053.
Stress Analysis Methods, Murray—April, p. 1002.
Simple, Fast Metallographic Polishing Method, Mc Cauley and Mondolfo—June, p. 1583.
Electrical Equipment for Spectrographic Analysis, Coulter—May, p. 1298.
Vanadium, Chromium-, Carburizing Steel "6120," Franklin, June—p. 1564.

WELDING, JOINING, FASTENING:

Engineering Review, Du Mond—Jan., p. 135.
Electric Furnace Copper Brazing of Steel Parts, Webber—March, p. 725.
Induction Brazing, Baubie—April, p. 1007.
Common Specifications for Silver Brazing Alloys, (Engineering File Facts), Burpo—Mar., p. 767.
Welding Stainless Steel, Hermann—Part I, Mar., p. 713, Part II, April, p. 992.
Heat Treated Rivets for High Strength Joints, Marvin—June, p. 1574.
Welding Multi-Layer Steel Pressure Vessels—June, p. 1578.
Pressure Vessels Made With Welded Nickel Alloy Linings, Menaugh—May, p. 1289.
Extruding Powdered Metals to Form Synthetic Welding Wire, Daveler—May, p. 1317.

WIRE DRAWING:

Engineering Review, Knight—Jan., p. 120.
Diamond Dies for Wire Drawing, Wall—Mar., p. 717.

X-RAY:

Materials and Methods for X-Ray and Power Tube Manufacture, Lindsay—Feb., p. 406.
Radiography with Multimillion-Volt X-Ray, Clauser—Mar., p. 706.